

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

INTELLECTUAL VENTURES I, LLC and	)	
INTELLECTUAL VENTURES II, LLC,	)	
	)	
Plaintiffs/Counter Defendants,	)	
	)	
v.	)	Civ. No. 11-908-SLR
	)	
MOTOROLA MOBILITY LLC,	)	
	)	
Defendants/Counter Claimants.	)	

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**MEMORANDUM OPINION**

Dated: March 31, 2016  
Wilmington, Delaware

  
ROBINSON, District Judge

## I. INTRODUCTION

On October 6, 2011, plaintiff Intellectual Ventures I, LLC and Intellectual Ventures II, LLC (collectively “IV”) filed suit in this district against defendant Motorola Mobility, Inc. (“Motorola”) alleging infringement of six patents: U.S. Patent Nos. 7,810,144 (“the ‘144 patent”), 6,412,953 (“the ‘953 patent”), 7,409,450 (“the ‘450 patent”), 7,120,462 (“the ‘462 patent”), 6,557,054 (“the ‘054 patent”), and 6,658,464 (“the ‘464 patent”). (D.I. 1) Motorola answered and asserted affirmative defenses of, inter alia, failure to state a claim, non-infringement, invalidity, prosecution history estoppel, the equitable doctrines of waiver, acquiescence, laches and unclean hands, and statutory time limitation on damages. (D.I. 10) Motorola also asserted counterclaims for non-infringement and invalidity. (*Id.*) IV answered Motorola’s counterclaims on January 6, 2012. (D.I. 13)

On August 20, 2013, Motorola filed a motion for summary judgment of invalidity (D.I. 230), and on September 9, 2013, Motorola filed a motion for summary judgment of non-infringement (D.I. 252). In a memorandum opinion and order dated January 2, 2014, the court issued its claim construction and resolved several issues, finding no infringement of claim 26 of the ‘144 patent and invalidity of claim 1 of the ‘953 patent based on the asserted prior art.<sup>1</sup> (D.I. 284) The court additionally denied Motorola’s motion for summary judgment of noninfringement of the ‘144, ‘953, ‘054, ‘464, ‘450, and

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<sup>1</sup> While the court found a genuine issue of material fact existed regarding whether the ‘911 patent discloses the conversion of the unusable light reflected by the optical rotation selection layer from one linear polarization to another, the court found that combining the Ouderkirk and Mukasa references renders the ‘953 patent obvious. (D.I. 284 at 36-40)

'462 patents, and denied Motorola's motion for summary judgment of invalidity of the '144 '054, '464, '450, and '462 patents. (*Id.*) On January 8, 2014, the court limited trial to those issues related to the '462, '054 and '464 patents. (D.I. 288)

A nine-day jury trial was held on January 24 - February 4, 2014. The trial resulted in a hung jury and a mistrial was declared. On March 5, 2014, Motorola filed a renewed motion for judgment as a matter of law (D.I. 319), which the court granted with respect to invalidity of claims 1 and 8 of the '464 patent (D.I. 349). On January 12, 2015, Motorola filed a supplemental brief on patent eligibility and indefiniteness regarding the '054, '450 and '144 patents. (D.I. 360) The court invalidated the asserted claims of the '054 patent as being directed to unpatentable subject matter under 35 U.S.C. § 101. (D.I. 378)

A six-day jury trial was held on March 16 - 24, 2015 on the infringement and validity of claim 41 of the '144 patent and claims 1, 5, 8 and 9 of the '450 patent ("Trial 1"). On March 25, 2015, the jury returned a verdict that claim 41 of the '144 patent was valid and infringed and invalidated the '450 patent based on obviousness. (D.I. 411) A five-day jury trial was held on March 26 - 30, 2015 on the infringement and validity of claims 1, 10, 11, and 13 of the '462 patent ("Trial 2"). On March 30, 2015, the jury returned a verdict that claims 1, 10, 11, and 13 of the '462 patent were valid and infringed. (D.I. 424) Presently before the court are the following motions: (1) Motorola's motion for new trial on the '144 patent (D.I. 433); (2) Motorola's renewed motion for judgment as a matter of law ("JMOL") on the '144 patent (D.I. 436); (3) IV's renewed motion for JMOL regarding the '450 patent (D.I. 438); (4) Motorola's motion for new trial on the '462 patent (D.I. 442); (5) Motorola's renewed motion for JMOL on the

'462 patent (D.I. 444); and (5) IV's motion to strike improper lodging of demonstrative exhibits (D.I. 449). The court has jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

## **II. BACKGROUND**

### **A. The Parties**

IV I and II are limited liability companies organized and existing under the laws of the State of Delaware, with their principal place of business in Bellevue, Washington. (D.I. 1 at ¶¶ 1-2) IV I owns the '144, '450, '054, and '464 patents. (*Id.* at ¶¶ 10, 14, 18, 20) IV II is the exclusive licensee of the '953 patent and owns the '462 patent. (*Id.* at ¶¶ 12, 16)

Motorola is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in Libertyville, Illinois. (*Id.* at ¶ 3) It makes, manufactures, and/or sells the accused products. (*Id.* at ¶ 28)

### **B. The Patents**

#### **1. The '144 Patent**

The '144 patent, titled "File Transfer System for Direct Transfer Between Computers," was filed on April 7, 2009 and issued on October 5, 2010.<sup>2</sup> The '144 patent "relates to transferring computer files electronically from one location to another, and more particularly to electronic transfer of computer files directly between two or more computers or computing devices." ('144 patent at 2:4-7)

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<sup>2</sup> The '144 patent is a continuation of application no. 10/657,221 filed on September 9, 2003, which is a continuation of application no. 10/167,697 filed on June 13, 2002, which is a continuation of application no. 09/694,472 filed on October 24, 2000, which is a continuation of application no. 09/190,219 filed on November 13, 1998, which claims priority to provisional application no. 60/065,533 filed on November 13, 1997.

## **2. The '450 Patent**

The '450 patent, titled "Transmission Control Protocol/Internet Protocol (TCP/IP) Packet-Centric Wireless Point to Multi-Point (PTMP) Transmission System Architecture," was filed February 28, 2005 and issued August 5, 2008.<sup>3</sup> The '450 patent claims a system and method for "coupling one or more subscriber customer premise equipment (CPE) stations with a base station over a shared wireless bandwidth using a packet-centric protocol; and allocating the wireless bandwidth and system resources based on contents of packets." ('450 patent, Abstract) The invention specifically relates to "a system and method for implementing a QoS [quality of service] aware wireless point-to-multi-point transmission system." (*Id.* at 3:27-30)

## **3. The '462 Patent**

The '462 patent, titled "Portable Computing, Communication and Entertainment Device with Central Processor Carried in a Detachable Handset," was filed December 19, 2005 and issued October 10, 2006.<sup>4</sup> It claims a system that involves: (1) a portable device referred to in the claims as a "detachable handset" that has a central processor; and (2) a "docking display unit" that lacks a central processor. ('462 patent at 1:19-30, 6:2-20) The detachable handset can be docked with the docking display unit and, when docked, the central processor in the detachable handset controls the entire system. (*Id.*)

## **III. STANDARDS**

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<sup>3</sup> The '450 patent is a continuation of application no. 09/349,477 filed on July 9, 1999, which claims priority from provisional application no. 60/092,452 filed on July 10, 1998.

<sup>4</sup> The '462 patent is a continuation of application no. 09/719,290 filed on April 7, 2000, which claims priority from provisional application no. 60/128,138 filed on April 7, 1999.

### **A. Renewed Motion for Judgment as a Matter of Law**

To prevail on a renewed motion for judgment as a matter of law following a jury trial, the moving party “‘must show that the jury’s findings, presumed or express, are not supported by substantial evidence or, if they were, that the legal conclusions implied [by] the jury’s verdict cannot in law be supported by those findings.’” *Pannu v. lolab Corp.*, 155 F.3d 1344, 1348 (Fed. Cir. 1998) (quoting *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893 (Fed. Cir. 1984)). “‘Substantial’ evidence is such relevant evidence from the record taken as a whole as might be acceptable by a reasonable mind as adequate to support the finding under review.” *Perkin-Elmer Corp.*, 732 F.2d at 893. In assessing the sufficiency of the evidence, the court must give the non-moving party, “as [the] verdict winner, the benefit of all logical inferences that could be drawn from the evidence presented, resolve all conflicts in the evidence in his favor, and in general, view the record in the light most favorable to him.” *Williamson v. Consol. Rail Corp.*, 926 F.2d 1344, 1348 (3d Cir. 1991); *Perkin-Elmer Corp.*, 732 F.2d at 893. The court may not determine the credibility of the witnesses nor “substitute its choice for that of the jury between conflicting limitations of the evidence.” *Perkin-Elmer Corp.*, 732 F.2d at 893. In sum, the court must determine whether the evidence reasonably supports the jury’s verdict. See *Dawn Equip. Co. v. Kentucky Farms Inc.*, 140 F.3d 1009, 1014 (Fed. Cir. 1998).

### **B. Motion for a New Trial**

Federal Rule of Civil Procedure 59(a) provides, in pertinent part:

A new trial may be granted to all or any of the parties and on all or part of the issues in an action in which there has been a trial by jury, for any of the reasons for which new trials

have heretofore been granted in actions at law in the courts of the United States.

Fed. R. Civ. P. 59(a). The decision to grant or deny a new trial is within the sound discretion of the trial court and, unlike the standard for determining judgment as a matter of law, the court need not view the evidence in the light most favorable to the verdict winner. *See Allied Chem. Corp. v. Daiiflon, Inc.*, 449 U.S. 33, 36 (1980); *Olefins Trading, Inc. v. Han Yang Chem. Corp.*, 9 F.3d 282 (3d Cir. 1993); *LifeScan Inc. v. Home Diagnostics, Inc.*, 103 F. Supp. 2d 345, 350 (D. Del. 2000) (citations omitted); see also 9A Wright & Miller, *Federal Practice and Procedure* § 2531 (2d ed. 1994) (“On a motion for new trial the court may consider the credibility of witnesses and the weight of the evidence.”). Among the most common reasons for granting a new trial are: (1) the jury’s verdict is against the clear weight of the evidence, and a new trial must be granted to prevent a miscarriage of justice; (2) newly-discovered evidence exists that would likely alter the outcome of the trial; (3) improper conduct by an attorney or the court unfairly influenced the verdict; or (4) the jury’s verdict was facially inconsistent. *See Zarow–Smith v. N.J. Transit Rail Operations*, 953 F. Supp. 581, 584–85 (D.N.J.1997) (citations omitted). The court must proceed cautiously, mindful that it should not simply substitute its own judgment of the facts and the credibility of the witnesses for those of the jury. Rather, the court should grant a new trial on the basis that the verdict was against the weight of the evidence only where a miscarriage of justice would result if the verdict were to stand. *See Williamson*, 926 F.2d at 1352; *EEOC v. Del. Dep’t of Health & Soc. Servs.*, 865 F.2d 1408, 1413 (3d Cir. 1989).

### **C. Infringement**

A patent is infringed when a person “without authority makes, uses or sells any patented invention, within the United States . . . during the term of the patent.” 35 U.S.C. § 271(a). To prove direct infringement, the patentee must establish, by a preponderance of the evidence, that one or more claims of the patent read on the accused device literally or under the doctrine of equivalents. See *Advanced Cardiovascular Sys., Inc. v. Scimed Life Sys., Inc.*, 261 F.3d 1329, 1336 (Fed. Cir. 2001). A two-step analysis is employed in making an infringement determination. See *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995). First, the court must construe the asserted claims to ascertain their meaning and scope. See *id.* Construction of the claims is a question of law subject to de novo review. See *Cybor Corp. v. FAS Techs.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998). The trier of fact must then compare the properly construed claims with the accused infringing product. See *Markman*, 52 F.3d at 976. This second step is a question of fact. See *Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1353 (Fed. Cir. 1998).

“Direct infringement requires a party to perform each and every step or element of a claimed method or product.” *Exergen Corp. v. Wal-Mart Stores, Inc.*, 575 F.3d 1312, 1320 (Fed. Cir. 2009) (internal quotation marks omitted). “If any claim limitation is absent from the accused device, there is no literal infringement as a matter of law.” *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000). If an accused product does not infringe an independent claim, it also does not infringe any claim depending thereon. See *Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1553 (Fed. Cir. 1989). However, “[o]ne may infringe an independent claim and not infringe a claim dependent on that claim.” *Monsanto Co. v. Syngenta Seeds, Inc.*, 503



F.3d 1352, 1359 (Fed. Cir. 2007) (quoting *Wahpeton Canvas*, 870 F.2d at 1552) (internal quotations omitted). The patent owner has the burden of proving infringement and must meet its burden by a preponderance of the evidence. See *SmithKline Diagnostics, Inc. v. Helena Lab. Corp.*, 859 F.2d 878, 889 (Fed. Cir. 1988) (citations omitted).

To establish indirect infringement, a patent owner has available two theories: active inducement of infringement and contributory infringement. See 35 U.S.C. § 271(b) & (c). To establish active inducement of infringement, a patent owner must show that an accused infringer “knew or should have known [their] actions would induce actual infringements.” *DSU Med. Corp. v. JMS Co., Ltd.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006). To establish contributory infringement, a patent owner must show that an accused infringer sells “a component of a patented machine ... knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.” *Golden Blount, Inc. v. Robert H. Peterson Co.*, 365 F.3d 1054, 1061 (Fed. Cir. 2004) (quoting 35 U.S.C. § 271(c)). Liability under either theory, however, depends on the patent owner having first shown direct infringement. *Joy Technologies, Inc. v. Flakt, Inc.*, 6 F.3d 770, 774 (Fed. Cir. 1993).

## **D. Invalidity**

### **1. Obviousness**

“A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having

ordinary skill in the art.” 35 U.S.C. § 103(a). Obviousness is a question of law, which depends on underlying factual inquiries.

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

*KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966)).

“[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 550 U.S. at 418. Likewise, a defendant asserting obviousness in view of a combination of references has the burden to show that a person of ordinary skill in the relevant field had a reason to combine the elements in the manner claimed. *Id.* at 418-19. The Supreme Court has emphasized the need for courts to value “common sense” over “rigid preventative rules” in determining whether a motivation to combine existed. *Id.* at 419-20. “[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* at 420. In addition to showing that a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process, a defendant must also demonstrate that “such a person would have had a reasonable expectation of success in doing so.” *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007).

A combination of prior art elements may have been “obvious to try” where there existed “a design need or market pressure to solve a problem and there [were] a finite number of identified, predictable solutions” to it, and the pursuit of the “known options within [a person of ordinary skill in the art’s] technical grasp” leads to the anticipated success. *Id.* at 421. In this circumstance, “the fact that a combination was obvious to try might show that it was obvious under § 103.” *Id.*

A fact finder is required to consider secondary considerations, or objective indicia of nonobviousness, before reaching an obviousness determination, as a “check against hindsight bias.” See *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1079 (Fed. Cir. 2012). “Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” *Graham*, 383 U.S. at 17-18.

“Because patents are presumed to be valid, see 35 U.S.C. § 282, an alleged infringer seeking to invalidate a patent on obviousness grounds must establish its obviousness by facts supported by clear and convincing evidence.” *Kao Corp. v. Unilever U.S., Inc.*, 441 F.3d 963, 968 (Fed. Cir. 2006) (citation omitted). In conjunction with this burden, the Federal Circuit has explained that,

[w]hen no prior art other than that which was considered by the PTO examiner is relied on by the attacker, he has the added burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job, which includes one or more examiners who are assumed to have some expertise in interpreting the references and to be familiar from their work with the level of skill in the art and whose duty it is to issue only valid patents.

*PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1304 (Fed. Cir. 2008) (quoting *Am. Hoist & Derrick Co. v. Sowa & Sons*, 725 F.2d 1350, 1359 (Fed. Cir. 1984)).

## **2. Enablement and Written Description**

The statutory basis for the enablement and written description requirements, § 112 ¶1, provides in relevant part:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same . . . .

“The enablement requirement is met where one skilled in the art, having read the specification, could practice the invention without ‘undue experimentation.’” *Streck, Inc. v. Research & Diagnostic Systems, Inc.*, 665 F.3d 1269, 1288 (Fed. Cir. 2012) (citation omitted). “While every aspect of a generic claim certainly need not have been carried out by the inventor, or exemplified in the specification, reasonable detail must be provided in order to enable members of the public to understand and carry out the invention.” *Genentech, Inc. v. Novo Nordisk A/S*, 108 F.3d 1361, 1366 (Fed. Cir. 1997). The specification need not teach what is well known in the art. *Id.* (citing *Hybritech v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986)). A reasonable amount of experimentation may be required, so long as such experimentation is not “undue.” *ALZA Corp. v. Andrx Pharmaceuticals, Inc.*, 603 F.3d 935, 940 (Fed. Cir. 2010).

“Whether undue experimentation is needed is not a single, simple factual determination, but rather is a conclusion reached by weighing many factual considerations.” *Martek Biosciences Corp. v. Nutrinova, Inc.*, 579 F.3d 1363, 1378

(Fed. Cir. 2009) (citing *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988)). The Federal Circuit has provided several factors that may be utilized in determining whether a disclosure would require undue experimentation: (1) the quantity of experimentation necessary; (2) the amount of direction or guidance disclosed in the patent; (3) the presence or absence of working examples in the patent; (4) the nature of the invention; (5) the state of the prior art; (6) the relative skill of those in the art; (7) the predictability of the art; and (8) the breadth of the claims. *In re Wands*, 858 F.2d at 737. These factors are sometimes referred to as the “Wands factors.” The fact finder need not consider every one of the Wands factors in its analysis, rather, a fact finder is only required to consider those factors relevant to the facts of the case. See *Streck, Inc.*, 655 F.3d at 1288 (citing *Amgen, Inc. v. Chugai Pharm. Co., Ltd.*, 927 F.2d 1200, 1213 (Fed. Cir. 1991)).

The enablement requirement is a question of law based on underlying factual inquiries. See *Green Edge Enterprises, LLC v. Rubber Mulch Etc., LLC*, 620 F.3d 1287, 1298-99 (Fed. Cir. 2010) (citation omitted); *Wands*, 858 F.2d at 737. Enablement is determined as of the filing date of the patent application. *In re ‘318 Patent Infringement Litigation*, 583 F.3d 1317, 1323 (Fed. Cir. 2009) (citation omitted). The burden is on one challenging validity to show, by clear and convincing evidence, that the specification is not enabling. See *Streck, Inc.*, 655 F.3d at 1288 (citation omitted).

A patent must also contain a written description of the invention. 35 U.S.C. § 112, ¶ 1. The written description requirement is separate and distinct from the enablement requirement. See *Ariad Pharmaceuticals, Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2011). It ensures that “the patentee had possession of the

claimed invention at the time of the application, i.e., that the patentee invented what is claimed.” *LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336, 1344-45 (Fed. Cir. 2005). The Federal Circuit has stated that the relevant inquiry – “possession as shown in the disclosure” – is an “objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed.” *Ariad*, 598 F.3d at 1351.

This inquiry is a question of fact; “the level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology.” *Id.* (citation omitted). In this regard, defendants must provide clear and convincing evidence that persons skilled in the art would not recognize in the disclosure a description of the claimed invention. See *PowerOasis*, 522 F.3d at 1306-17 (citation omitted).

#### **IV. MOTOROLA’S RENEWED JMOL MOTION ON THE ‘144 PATENT (TRIAL 1)**

As noted, the ‘144 patent “relates to transferring computer files electronically from one location to another, and more particularly to electronic transfer of computer files directly between two or more computers or computing devices” (‘144 patent at 2:4-7) IV alleges that Motorola’s products infringe independent claim 41 which teaches a communications device as reproduced below:

A communications device, comprising:  
a processor; and  
a memory that stores at least one program usable to control the  
communications device,  
wherein the communications device is configured to:

- display a collection of file identifiers, wherein each file identifier represents a selectable file;
- receive a user selection of at least one file identifier representing a file selected to be transferred to a second device;
- display a collection of destinations identifiers, wherein each destination identifier represents a remote device having a numbered destination address on a circuit switched or packet switched network;
- receive a user selection of at least one destination identifier as selection of the second device;
- display a data entry field in which a text message can be entered;
- receiving the text message;
- encapsulate the text message with the selected file into a single combined file;
- generate a unique transaction identifier that identifies a transfer of the single combined file; and
- send the single combined file to the second device at its numbered destination address, the second device being configured to:
  - receive the single combined file irrespective of user action at the second device;
  - generate a delivery confirmation message confirming reception of the single combined file;
  - transmit to an authenticating device of the communications network, the delivery confirmation message;
  - provide an alert indicating reception of the single combined file;
  - display an identification of the communications device in relation to at least one of the selected file or the associated text file, wherein the identification includes at least one of a communications address of the communications device, a name of the communications device, or a username associated with the communications device; and
  - display at least a portion of content of the selected file or the text message, wherein the authenticating device is configured to:
    - generate a delivery report that indicates a delivery event and a time of the delivery event.

('144 patent at 44:61-46:16)

#### **A. Infringement**

At trial, IV asserted that the following Motorola products infringe claim 41 of the '144 patent: Atrix 2, Atrix 4G, Atrix HD, Admiral Electrify, Electrify 2, Electrify M, Photon 4G, Photon Q 4G LTE, Defy XT, XT 886, XPRT, Titanium, Triumph, Rambler, Bali, i576, Quantico, Brute i680, Brute i686, Clutch i457, I 412, i886, Milestone X, Theory, and the

i867 (“the accused products”).<sup>5</sup> (D.I. 473 at 140:25-141:4, 141:10-12) IV specifically accuses the multimedia message system (“MMS”) application<sup>6</sup> of the accused products. (D.I. 473 at 153:5-7) A multimedia message is a combination of text with a photo or text with video that IV asserts Motorola infringes by encouraging users to send MMS messages through its user guides and website. (D.I. 473 at 152:18-153:5)

As to the overall inventive concept of the ‘144 patent, the “invention is about sending information from one person to another without either the person sending the information or the person receiving the information needing to log in or download the information. [Instead, t]he information is sent directly from point A to point B.” (D.I. 473 at 155:22-156:2) Further, the “invention allows for direct transfer of files from user to user, and it eliminates the cost issues and security risks associated with long term storage. By including the authentication device . . . the fact that a message gets delivered is not only confirmed, but it allows for billing.” (D.I. 473 at 159:25-160:6) The invention was originally licensed by the U.S. Postal Service (D.I. 473 at 158:23-25), and IV asserts Motorola has been aware of the patents since the lawsuit was filed in October of 2011. (D.I. 473 at 161:1-3; 299:14-24)

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<sup>5</sup> During trial, the parties stipulated that Motorola has sold the following products in the United States: The Atrix 2, the Atrix 4G, the Atrix HD, the Electrify, the Electrify 2, the Electrify M, the D5XT, the Admiral, the Photon 4G, the Photon Q, 4G LTE, the XPRT, the titanium, the i886 and the i867. (D.I. 474 at 300:13-17)

<sup>6</sup> IV later refers to this application as the Multimedia Message Service Center (“MMSC”), which “tracks delivery, confirms delivery, and is used for billing.” (D.I. 473 at 161:14-18)



When asked about the focus of the '144 patent,<sup>7</sup> named inventor Maurice Haff responded "it's really focused on direct transfer of files between computers." (D.I. 473 at 210:9-10) At the time he began to conceive of the invention, e-mail was inconvenient, cumbersome, unreliable, and insecure. (D.I. 473 at 211:20-25) Transferring files from one computer to another through e-mail involved the file potentially being stored on the sender's computer, the sender's server, the recipient's server, and the recipient's computer, all of which were targets for hacking and did not provide authentication that the recipient received the file. (D.I. 473 at 213:17-21) In sum, the motivation was to eliminate the "long term storage issue because of the security concerns and the costs associated with it." (D.I. 473 at 220:22-24)

IV then presented the deposition testimony of Naveen Aerrabotu, a Motorola software and smartphone development engineer who was unavailable for trial. (D.I. 473 at 240:15-241:18) During his deposition, Mr. Aerrabotu was presented with several documents detailing multimedia messaging standards in U.S. carriers (D.I. 242:1-4, 244:8-256:19), and later testified regarding tests conducted on various Motorola phones to ensure MMS functionality with U.S. carriers including AT&T and Sprint. (D.I. 474 at 267:5-274:7) He additionally testified that every MMS message sent by a Motorola Android-based phone would include a transaction I.D. as part of the message header, "a unique identifier of the transaction between the originating MMS client and the MMS server."<sup>8</sup> (D.I. 474 at 246:16-248-20). Deposition testimony by Andrzej Koziol, a

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<sup>7</sup> The '144 patent derived from U.S. Patent No. 6,219,669 ("the '669 patent"). (D.I. 473 at 209:17-21, 235:1-5)

<sup>8</sup> He specified that a different protocol would apply when a MMS message is sent to multiple people.

Motorola software engineer, indicated that MMS application testing was also completed for AT&T, T-Mobile and U.S. Cellular. (D.I. 474 at 275:23-278:8) When asked about the generation of a delivery report requested by the sending Motorola device, Mr. Koziol testified that it is the MMSC that confirms delivery. The sending device includes an encapsulated transaction ID and the receiving phone MMSC sends a delivery report that includes “message type, MMS version, message ID, recipient address, date and time, and MM status.” (D.I. 474 at 286:13-287:25)

Dr. Hugh Smith, IV’s infringement expert, testified that claim 41 of the ‘144 patent requires a “communications device,” a “second device,” and an “authenticating device.” (D.I. 474 at 313:24-314:18; ‘144 patent at 44:60, 45:17, and 46:1). Dr. Smith additionally testified that he tested the MMS application of 14 Motorola devices<sup>9</sup> on four carriers to include AT&T, U.S. Cellular, Sprint, and Boost. (D.I. 474 at 315:10-14, 316:9-10) Through a video, he demonstrated operation of the MMS application by sending an MMS message from a Motorola Defy (PTX-0122) to a Motorola Atrix HD (PTX-0151), referring to the MMSC as the MMS center as the “proxy relay” responsible for routing, authentication, and creating a delivery report. (D.I. 474 at 317:4-320:10)

## **1. Direct Infringement**

### **a. Divided infringement**

Motorola argues that IV’s direct infringement case is barred by divided infringement because it requires different parties to perform different actions on entirely separate devices. As IV’s expert agreed, claim 41 requires three different devices: a “communications device,” a “second device,” and an “authenticating device.” (‘144

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<sup>9</sup> All 14 devices were admitted.

patent at 44:60, 45:17, 46:1; D.I. 474 at 313:24-314:18, 384:11-385:3; D.I. 478 at 1303:7-23) The court construed “authenticating device” as “a third-party authenticating device.” (D.I. 284 at 19) In other words, a device separate from the other two devices is required by the claim. For both direct infringement by Motorola customers and by Motorola itself through testing of accused devices, IV pointed to the use of a Motorola accused phone (the alleged “communications device”) to send an MMS message to another accused Motorola phone (the alleged “second device”). (D.I. 474 at 359:9-10, 364:17-24, 384:11-25, 386:2-12) As to the “authenticating device” that must be configured to generate a delivery report, IV pointed to MMSCs, intermediary computers run by carriers such as AT&T and Sprint that route MMS messages between the sending and receiving phones. (D.I. 474 at 344:12-17, 391:18-392:3, 317:4-15) However, as Dr. Smith admitted, Motorola does not operate the MMSCs. (D.I. 474 at 392:14-16) Rather, it is the wireless carriers that generate the claimed delivery report at their respective MMSCs. (D.I. 474 at 349:23-352:5) Motorola argues that since there is no single actor that uses each limitation of the claim, IV failed to provide substantial evidence of direct infringement. Additionally, Motorola argues that the sections of Dr. Smith’s reports discussing the authenticating device and delivery report limitations of claim 41 do not allege that the user of the sending “triggers” or “causes” the generation of the delivery report at the MMSC, much less that the user of the sending device “uses” the MMSC through such a theory. (D.I. 403, ex. D at 57-63, 105-106)

IV counters that Motorola did not raise the divided infringement issue until JMOL. IV’s theory of infringement has been, and continues to be, that Motorola and its customers infringe. Notably, IV argues, Motorola’s noninfringement expert never opined

on divided infringement, Motorola never moved for summary judgment on it, Motorola never offered jury instructions on divided infringement, and Motorola never disclosed a divided infringement defense in its contention interrogatory responses.<sup>10</sup>

Nonetheless, IV asserts that Dr. Smith repeatedly and consistently explained that the sending of a MMS from a first Motorola phone sets off a series of events that automatically invokes and controls what occurs at the receiving Motorola phone and at the MMSC in accordance with the claims. (D.I. 474 at 413:2-19, 414:22-415:13, 372:1-373:13) Therefore, the user that uses a Motorola phone to send a MMS to another Motorola phone “put[s] the invention into service, i.e., control[s] the system as a whole and obtain[s] benefit from it.” (D.I. 474 at 413:2-19, 414:22-415:13, 312:12-25); *Centillion Data Sys. v. Qwest Comm'ns In'tl, Inc.*, 631 F.3d 1279, 1284 (Fed. Cir. 2011) (defining “use” of a system for purposes of infringement). Additionally, Motorola’s argument regarding the user receiving a benefit is unavailing as *Centillion* did not hold that the infringer “benefit” from every single limitation. Rather, *Centillion* held that the user must “obtain benefit” from the “system as a whole” and its analysis of (and finding of) benefit was not on a limitation-by-limitation basis. *Centillion*, 631 F.3d at 1284-85. According to IV, the user sending the MMS benefits from each limitation and inventive concept of the system at least because it benefits from the direct transfer of the MMS (i.e., sending its message directly to a recipient as opposed to a repository for retrieval) and the MMSC authenticating the transfer with a delivery report noting the date and time when it is delivered. Additionally, Motorola’s arguments regarding “control” are

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<sup>10</sup> The court denied Motorola’s request to brief this “divided infringement” theory as a supplemental motion for summary judgment on January 6, 2015 (D.I. 358), and again when defendants tried to raise it during the pretrial conference. (D.I. 394)

conclusory. The only inquiry is whether “but for” the user sending the MMS, would the entirety of the claim be “put into service,” consistent with *Centillion*. *Centillion*, 631 F.3d at 1284-85. IV has proven that when the MMS is sent, it invokes everything that happens at the receiving phone and the MMSC.

Further, Dr. Smith’s testimony was consistent with his reports. After Dr. Smith reviewed the evidence, he opined that Motorola and its customers directly infringed claim 41 by using the MMS application, containing extensive analysis showing that when a user sends an MMS message using the MMS application on the accused products, it invokes and controls the MMSC. The jury heard testimony from both Dr. Smith and Motorola engineer, Andrzej Koziol that confirmed the MMSC operates in response to the user sending an MMS. (D.I. 474 at 280:7-19; 312:12-25; 342:21-346:12; 350:3-353:6) As to the “trigger/cause” theory, IV points to Dr. Smith’s report where he states that “[t]he receiving of the M-Notification.ind PDU will **trigger** the second device to send a WSP/HTTP GET.req message to the MMSC containing a URI found in the M-Notification.ind PDU.” (D.I. 451, ex. 2 at 90) (emphasis added)

Having reviewed the record at bar, the court finds Motorola has no basis to overturn the jury’s verdict based on a divided infringement theory. IV presented sufficient evidence for reasonable minds to accept that the sending of a MMS from a first Motorola phone sets off a series of events that automatically invokes and controls what occurs at the receiving Motorola phone and at the MMSC in accordance with the claims. *SIBIA Neurosciences, Inc. v. Cadus Pharm. Corp.*, 225 F.3d 1349, 1354 (Fed. Cir. 2000) (“[The court] must draw all reasonable inferences in favor of the prevailing party, and not make credibility determinations or substitute [its] view of the conflicting

evidence for that of the jury.”) Moreover, Dr. Smith’s testimony did not exceed the scope of his reports in this regard or the “trigger/cause” theory as discussed supra.<sup>11</sup>

#### **b. Direct infringement**

Motorola asserts that IV’s infringement theory required sending MMS messages from one accused Motorola phone to another. (D.I. 474 at 383:5-9, 386:18-24) As evidence of direct infringement by end-users, however, Dr. Smith relied on a consumer survey (by IV expert Dr. David Stewart) that did not ask whether users ever sent MMS messages to another accused Motorola phone.<sup>12</sup> (D.I. 474 at 365:3-22; D.I. 475 at 520:7-14) Further, as proof of direct infringement based on Motorola’s testing, Dr. Smith pointed to various documents concerning compliance testing that Motorola did for some carriers and some devices. (D.I. 474 at 315:5-14, 360:4-361:2; PTX-782; PTX-893; PTX-895; PTX-896) Motorola alleges these compliance documents do not require (or even suggest) that Motorola had to send MMS messages between two accused Motorola phones. Finally, Motorola argues that IV failed to present evidence concerning testing of the accused SouthernLINC device, that evidence regarding the accused U.S. Cellular devices merely concerned sending pictures alone, and failed to prove that Motorola phones hosted on the AT&T and U.S. Cellular networks met limitation 41[s],

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<sup>11</sup> The court additionally denies Motorola’s request for a new trial based on the same evidence. See *Levy v. Schmidt*, 573 F. App’x 98, 105 (3d Cir. 2014) (“A district court should grant a new trial on the basis that the verdict was contrary to the weight of the evidence ‘only where a miscarriage of justice would result if the verdict were to stand.’ ” (quoting *Williamson v. Consol. Rail Corp.*, 926 F.2d 1344, 1352 (3d Cir.1991))).

<sup>12</sup> IV pointed to the overall number of MMS messages in closing, asking the jury to infer that some of those messages went from one Motorola phone to another Motorola phone. (D.I. 478 at 1303:24-23:1, 1308:8-1309:9)

“the authenticating device is configured to: generate a delivery report that indicates a delivery event and a time of the delivery event.” (‘144 patent at 46:14-17)

IV counters that there is overwhelming evidence of direct infringement by both Motorola itself and end-users. With respect to direct infringement by end-users, IV introduced a consumer survey that showed that each of the accused products had been used to send and receive MMS messages and that roughly 75% of all users had done so. (PTX-116; PTX-117; D.I. 474 at 364:4-365:22; D.I. 475 at 508:22-515:8) IV also showed that in just one month on just one network while this case was pending, there were more than 14,500,000 MMS messages sent using just two Motorola phones. (PTX-874; D.I. 474 at 365:23-366:13, 298:3-15) IV’s expert, Dr. Smith, testified and showed the jury through a video demonstration that he had sent MMS messages between two Motorola phones. (D.I. 474 at 318:1-320:11) As to Motorola’s argument concerning the accused SouthernLINC device and devices utilizing the U.S. Cellular and AT&T networks, IV demonstrated that all the accused phones operated in the same manner. (D.I. 474 at 308:15-309:6, 321:12-354:7) Moreover, numerous compliance and testing documents show that numerous phones of the same model were tested and that sending and receiving of MMS messages was tested on the various carrier networks. (D.I. 474 at 358:22-364:3, PTX 782, 893, 895 and 896) Finally, IV also introduced testimony from a Motorola witness that all Motorola phones are tested before they are released. (D.I. 474 at 267:5-274:7, 275:23-278:8)

Insofar as Motorola presented a question of fact regarding MMS messages from one accused Motorola phone to another, the court is charged with determining whether there is evidence upon which the jury could properly find for the non-moving party.

Viewing the record in the light most favorable to IV, the court concludes that a jury could properly credit the testimony of IV's experts above that of Motorola's experts and determine that Motorola's accused products directly infringe claim 41 of the '144 patent. IV's testimony furnishes sufficient evidence to support the jury's infringement verdict. The court denies Motorola's JMOL with respect to infringement of claim 41 of the '144 patent.<sup>13</sup>

## **2. Contributory infringement**

As a threshold matter, Motorola argues there can be no contributory infringement without the underlying act of direct infringement as discussed above. Additionally, Motorola argues IV failed to prove that the alleged contributory infringer supplied a component with no substantial noninfringing uses in accordance with 35 U.S.C. § 271(c). Specifically, the accused products as phones have many uses besides the MMS feature, such as voice calls, video calls, online gaming, and web surfing, which Dr. Smith admitted are noninfringing uses. (D.I. 474 at 411:10-412:20) Motorola alleges that IV improperly focused on "the MMS functionality [] on the phone." (D.I. 474 at 374:9-13) But even if the "MMS functionality" were the appropriate focus, Dr. Smith admitted that the MMS application within the phone could be used to send just a photo, with no accompanying text message, which is a noninfringing use. (D.I. 474 at 379:24-380:10, 383:18-21) He further admitted that using this "same application" to send text-only messages (i.e., no photo or video attachments) would be another noninfringing use. (D.I. 474 at 378:21-25, 379:16-20) Dr. Smith also admitted that the MMS

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<sup>13</sup> The court additionally denies Motorola's request for a new trial based on the same evidence. *Levy*, 573 F. App'x at 105.



functionality could be used to send MMS messages to non-Motorola phones, another noninfringing use (D.I. 474 at 386:18-24, 387:13-388:4), and that the MMS functionality on Motorola phones can be set to disable automatic receipt of MMS messages, such that MMS messages would not be received “irrespective of user action” as claim 41[m] requires (D.I. 477 at 1179:18-1180:8).

IV argues that the issue of contributory infringement relates not to the phones as a whole, but to the “software and hardware to carry out the MMS functionality,” which had no substantial noninfringing uses. (D.I. 474 at 373:14-375:25); *i4i Ltd. Partnership v. Microsoft Corp.*, 598 F.3d 831, 849 (Fed. Cir. 2010) (the substantial noninfringing use should be focused on the accused functionality and not “all of the other uses” of the accused product). While Motorola argues that sending only a photo or text is a noninfringing use, the method of sending a text message is “completely different” from how a MMS is sent and these text messages do not concern “software and hardware [used] to carry out the MMS functionality.” (D.I. 474 at 378:21-379:4) Likewise, sending a picture by itself is not a substantial noninfringing use because the MMS message would not be a “multimedia” message with a picture alone and because (as demonstrated at trial by both parties) the single combined file that is encapsulated includes text and a media file. (D.I. 474 at 333:4-334:11; PTX-765 at 10) As to Motorola’s argument about sending a MMS to a non-Motorola phone, the only non-Motorola phones to which a MMS could be sent (Apple, Samsung, and HTC) are all licensed. (D.I. 474 at 387:3-12, 405:5-19)

The court finds IV’s testimony furnishes sufficient evidence to support the jury’s contributory infringement verdict. As discussed *supra*, the jury’s direct infringement

verdict stands and, contrary to Motorola's assertions, a reasonable jury could have concluded that Motorola's accused products had no substantial noninfringing uses. Motorola has no basis to overturn the jury's verdict. *SIBIA*, 225 F.3d 1349 at 1355. Motorola's motion for JMOL on contributory infringement regarding claim 41 of the '144 patent is denied.

### **3. Induced infringement**

Motorola argues that induced infringement requires an underlying act of direct infringement as discussed above. Motorola additionally alleges that IV failed to prove indirect infringement by Motorola's customers. (D.I. 474 at 367:9-19) Specifically, IV failed to introduce Motorola user guides that explained how to send an MMS message containing text and a file for each of the 14 accused devices. Instead, Motorola alleges, IV introduced guides that mentioned sending MMS messages containing text and a file for two of the 14 accused devices, the Photon Q 4G LTE (PTX-75) and Atrix HD (PTX-53). IV also introduced no user guides instructing Motorola customers to send such MMS messages to other Motorola accused phones, to phones configured for automatic retrieval of messages, or through MMSCs configured to generate delivery reports, all of which are required under IV's infringement theory.

IV counters that the user guides are not the only evidence of inducement. IV introduced the following evidence of inducement: providing the stock MMS application on all its phones, manuals with instructions, website advertisements, and Moto Care. (D.I. 474 at 366:21-373:13, 331:10-18, D.I. 477 at 1112:3-1116:5; PTX-53; PTX-75; PTX-880; PTX-888; PTX-889; PTX-890) Moreover, IV argues that it demonstrated Motorola knew of the patent as of the filing of the complaint in October 2011, but

Motorola did not modify its conduct and continues to advertise the MMS functionality, provide support to customers for the functionality, and instruct users how to engage in infringing activity. (D.I. 474 at 299:14-24; PTX-53; PTX-75; PTX-880; PTX-888; PTX-889; PTX-890) Regarding the manuals, IV argues that the proffered representative manuals showing instructions how to infringe supports the finding of inducement, particularly when coupled with other forms of encouragement to infringe by Motorola. (PTX-53; PTX-75; PTX-880; PTX-888; PTX-889; PTX-890) As previously discussed, Dr. Smith testified that all of the accused phones operate in an identical manner. (D.I. 474 at 308:15-309:6, 321:12-354:7) Motorola did not rebut this testimony.

Finally, IV argues the user guides show every step that a user needs to perform at the first device in order to “put the invention into service, i.e., control the system as a whole and obtain benefit from it.” *Centillion*, 631 F.3d at 1284-85; PTX-75; PTX-53; (D.I. 474 at 371:12-373:13) The remaining steps at the second device and MMSC are performed automatically after the MMS is sent by the user at the first device. (D.I. 474 at 413:2-19, 414:22-415:13, 372:1-373:13).

Having reviewed the record, the court finds IV presented sufficient evidence of inducement. A reasonable jury could credit IV’s presentation of Motorola’s user guides, manuals, website advertisements, and Moto Care to conclude that Motorola induced infringement of claim 41 of the ‘144 patent. Motorola has no basis to overturn the jury’s verdict and its motion for JMOL on induced infringement of claim 41 of the ‘144 patent is denied.

## **B. Invalidity**

### **1. Written description**

Motorola argues that claim 41 is invalid for lack of written description because the specification does not describe file transfers with long-term or permanent storage of the file on an intermediary computer while claim 41 covers this permanent or long term storage. (D.I. 437 at 2) Motorola relies on the testimony of named inventor Maurice Haff for the proposition that he wanted to eliminate long term storage due to security and reliability concerns. (D.I. 437 at 3; D.I. 473 at 220:22-24) As to claim 41, Motorola points to testimony by IV's infringement expert, Dr. Smith, that claim 41 covers file transfers with "any kind of storage, long term, short term, transient, non-transient." (D.I. 477 at 1169:13-17)

IV argues, and the court agrees, that Motorola waived this theory as the issue of claim scope had not been raised previously. (D.I. 452 at 1) Rather, as litigated in summary judgment<sup>14</sup> and in trial, the '144 patent prohibits "intermediate storage" during direct file transfer. The dispute was whether claim 41 and the specification were limited to no storage during transfer or temporary/transient storage during transfer. Until Motorola's JMOL filing, the issue of long term or permanent storage had not been raised. Additionally, claim 41 does not cover file transfers that involve long-term or permanent storage. The testimony relied upon by Motorola did not involve transfer, and Dr. Smith was clear that storage unrelated to transfer is irrelevant to the claims. (D.I. 477 at 1620-1161:4) Motorola's motion for JMOL is denied in this regard.<sup>15</sup>

## **2. Obviousness**

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<sup>14</sup> D.I. 284 at 24-26

<sup>15</sup> The court additionally denies Motorola's request for a new trial based on the same evidence. *Levy*, 573 F. App'x at 105.

Motorola argues that it demonstrated by clear and convincing evidence that claim 41 is obvious over U.S. Patent No. 5,379,340 (“Overend”) in view of U.S. Patent No. 5,553,145 (“Micali”). (D.I. 437 at 7) First, Motorola’s invalidity expert Dr. Martin Rinard explained how Overend discloses nearly every limitation of claim 41. (D.I. 476 at 775:19-799:12; Overend) As Dr. Rinard noted, the only limitation that Overend does not disclose is the third-party authenticating device found in limitations [o] and [s] of claim 41. However, Micali discloses the third-party authenticating device missing from Overend. (D.I. 476 at 801:10-803:21; Micali at Abstract, 4:50-63) Specifically, Micali discloses a trusted third party that certifies message transfers between a sending and receiving computer. (D.I. 476 at 801:10-803:21; Micali at Abstract, 4:62-63) As discussed below, IV counters that Motorola fails to prove that Overend discloses claim 41[m] of the ‘144 patent.

**a. Overend and the “irrespective of user action” limitation**

Claim 41[m] requires a second device configured to “receive the single combined file irrespective of user action at the second device.” (‘144 patent at 45:20-21) In other words, the file will be received regardless of user action at the second device. Motorola argues IV’s expert testified that Overend teaches computing devices configured to receive files automatically, without a user having to login, download the files, or perform any other action. Additionally, Motorola argues that IV’s expert further admitted that Overend discloses a “Receive” mode of operation, where the devices receive files without any interaction from the user. (Overend at 20:65-68; D.I. 477 at 1176:10-1177:5)

IV avers that Motorola misinterprets Overend and its expert's testimony. Specifically, Overend teaches that the devices are "arranged to receive messages whilst unattended." (Overend at 1:38-48) As to the "Receive" mode of operation, the device receives files without any interaction from the user. (D.I. 477 at 1176:10-1177:5; Overend at 20:65-68). In "Receive" mode, the device can only receive messages where there is no possibility for user action at the device (i.e., the device is unattended). Therefore, IV's expert testified, unattended and "irrespective of user action" are not the same thing. (D.I. 477 at 1136:1-10) When there is user action at the device, for example using the device's word processor, the Overend device cannot receive. (Overend at 39:14-15; D.I. 477 1137:17-1139:7) Overall, IV argues the evidence of record confirms that Overend does not disclose the "irrespective of user action" limitation because Overend expressly limits receipt of files to situations where there is no user action at the device.<sup>16</sup>

**b. Combined teachings of Overend and Micali as to the "authenticating device" limitation**

Motorola argues that IV's expert ignored the combined teachings of Overend and Michali. Dr. Smith asserted that Overend and Micali do not meet claim limitations 41[o] and [s],<sup>17</sup> which require an authenticating device that receives a delivery confirmation

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<sup>16</sup> Moreover, Motorola's expert admitted on cross that he did not show the jury portions of the specification of Overend that belie Motorola's position, nor did he show the jury the portions of the flow diagram of the software used in the Overend system for receiving messages that involves user login. (D.I. 476 at 817:6-820:13; '144 patent at Figs. 5a, 6a, 6b, 4:33-38, 15:22-55) This also is not "irrespective of user action."

<sup>17</sup> Claim limitation 41[o] is "transmit to an authenticating device of the communications network, the delivery confirm message." ('144 patent at 46:1-2) Claim 41[s] includes "wherein the authenticating device is configured to: generate a delivery report that indicates a delivery event and a time of the delivery event." ('144 patent at 46:13-17)

message and generates a delivery report, because Micali's disclosed messaging system does not disclose a delivery confirmation message or delivery report. (D.I. 477 at 1140:3-14, 1144:17-1145:17) Motorola argues that the question is not whether these limitations exist in Micali alone but, rather, whether they exist in the combined teachings of Micali and Overend.

IV argues that the jury properly rejected Motorola's argument. Dr. Smith explained these references cannot be combined to render these limitations obvious because, even when combined, there is no authenticating device in Overend and no authenticating device in Micali that receives a "delivery confirmation message" or generates a "delivery report." (D.I. 477 at 1135:2-13, 1145:20-1146:22) Additionally, these references both have to be modified (rather than combined) in order to even argue obviousness. (D.I. 477 at 1145:20-1146:22) Finally, IV argues that on cross examination, Motorola's expert admitted that all of claim limitation 41[o] was missing. (D.I. 476 at 823:2-11) This thwarts the premise of Motorola's argument that the combination discloses all limitations.

### **c. Motivation to combine**

Motorola argues IV's expert did not dispute Motorola's expert's testimony regarding express teachings from both Overend and Micali that explain why a motivation to combine existed at the time of the invention. (D.I. 476 at 801:10-803:8, 804:4-806:15; Overend at 5:29-39; Micali at Abstract, 4:50-63) IV argues that the jury was free to reject Motorola's obviousness analysis and did not have to credit the testimony of Motorola's expert over IV's expert on this matter. IV additionally asserts

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that Motorola's expert testified in a conclusory fashion regarding combining these references and as discussed above, combining them would require modification. (D.I. 476 at 808:7-23)

#### **d. Conclusion**

The court finds that Motorola did not identify sufficient evidence to overturn the jury's verdict of nonobviousness. The "Receive" mode disclosed in Overend and the "irrespective of user action" limitation are not the same because Overend specifies that the device be unattended in "Receive" mode. As to the combination of Overend and Micali, the jury was free to credit Dr. Smith's testimony that the references cannot be combined to render these limitations obvious because, even when combined, there is no authenticating device in Overend and no authenticating device in Micali that receives a "delivery confirmation message" or generates a "delivery report." The evidence reasonably supports the jury's conclusion that Motorola has not proven by clear and convincing evidence that claim 41 of the '144 patent is invalid based on obviousness. Motorola's motion for JMOL is denied.<sup>18</sup>

#### **V. MOTOROLA'S MOTION FOR A NEW TRIAL ON THE '144 PATENT (TRIAL 1)**

In addition to the arguments already rejected by the court, Motorola argues a new trial is warranted because its objection regarding the user manual for the accused Photon Q Motorola phone was overruled. (D.I. 474 at 262:11-265:1, D.I. 477 at 989:19-992:9) Motorola asserts that it objected because Dr. Smith's expert report did not contain any substantive discussion of this manual regarding the subject matter on which

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<sup>18</sup> The court additionally denies Motorola's request for a new trial based on the same evidence. *Levy*, 573 F. App'x at 105.



he testified at trial. (PTX-75; D.I. 474 at 326:25-327:11, 328:20-329:3, 331:10-15, D.I. 477 at 1112:3-22; D.I. 434 ex. D at 7-28, 98-101) Rather, Motorola argues that Dr. Smith's expert report cited to this user manual in a generic "see also" cite that pointed to user manuals for 26 different phones without any substantive discussion of any of those manuals. (D.I. 435, ex. 1 at 16-17, 24) Because Dr. Smith "buried" the Photon Q manual in a generic "see also" cite, as opposed to actually discussing it in his report as he did with other materials, Motorola was not put on notice of the evidence and opinion that Dr. Smith would actually rely on at trial.

Motorola argues the difference between the materials actually discussed in Dr. Smith's expert report, which included excerpts from Motorola's website, and the Photon Q manual he discussed at trial were significant. IV's theory of infringement required the MMS message to contain both text and a selected file. (D.I. 474 at 332:4-12, 377:22-378:16) According to Motorola, the materials that Dr. Smith discussed in his report, however, did not explain how to send an MMS message containing text and a file. (D.I. 435, ex. 1 at 23-26) But the manual for the Photon Q as to which Dr. Smith testified at trial did include this information. Thus, Motorola asserts that Dr. Smith's testimony went beyond the scope of his expert report and a new trial is warranted.

Regarding the Photon Q manual and testimony, IV points out that this was given during rebuttal testimony despite the absence of a rebuttal infringement report. Further, Dr. Smith cited to the manual as support for this theory in his report, and the manual was admitted into evidence without objection from Motorola. IV additionally asserts that Dr. Smith included the Photon Q phone and its manual in his report as part of a chart

listing the accused products he examined, so Motorola's argument regarding surprise is unavailing.

The court agrees with IV. The "see also" cite discussed by Motorola references a list of accused products that Dr. Smith examined and provides the user manual examined corresponding to each product. (D.I. 435, ex. 1 at 14-17) This is not "buried" in his report and Motorola did not object to admission of the user manual. Motorola's motion for new trial is denied in this regard. Motorola also asserts that a new trial is warranted because the jury instructions on contributory infringement should have focused on the accused phones rather than instructing the jury to evaluate whether "the hardware and software to carry out the MMS functionality" had no substantial noninfringing uses. (D.I. 398 at 31-32; D.I. 407 at 28-29)

IV argues, and the court agrees, that the instruction was both correct and Motorola waived the argument by not expressly objecting to the instruction. Rather, Motorola suggested harmonizing the instruction with the word "system" rather than "product." (D.I. 477 at 976:4-15) As far as objections during the charge conference, Motorola objected to instructions regarding secondary considerations and contributory infringement instructions for the '450 patent, but not the instant argument on contributory infringement. Motorola's motion for a new trial is denied.

#### **VI. IV'S RENEWED JMOL MOTION ON THE '450 PATENT (TRIAL 1)**

The '450 patent generally covers a "method... for a wireless device, such as a smartphone, to communicate with a base station and to efficiently allocate bandwidth so that data with higher priority gets transmitted first." (D.I. 473 at 164:23-165:1) In other words, the invention claimed by the '450 patent allocates and prioritizes bandwidth. For

instance, the data required by a voice call “gets processed by the system first” while data from “an e-mail, gets processed next,” ensuring “quality of service when [users] are using their phone.” (D.I. 473 at 165:9-17)

Independent claim 1 is reproduced below:

1. A method comprising:  
coupling one or more subscriber customer premise  
equipment (CPE) stations with a base station over a shared  
wireless bandwidth using a packet-centric protocol; and  
allocating said wireless bandwidth and system resources

based on contents of packets to be communicated over said

wireless bandwidth, wherein the contents of each packet

include a packet header and wherein the allocating is

responsive to at least one field in the packet header.

(‘450 patent at 81:54-62)

At trial, IV asserted that the following Motorola products infringe claims 1, 5, 8, and 9 of the ‘450 patent: Atrix 2, Atrix 4G, Atrix HD, XT 886, Photon 4G, Photon Q 4G LTE, XPRT, Defy XT, Triumph, Milestone X, and Admiral products (“accused ‘450 products”). (D.I. 411 at ¶ 7; D.I. 473 at 141:12-16) IV specifically accuses the push-to-talk application of the accused ‘450 products and asserts that Motorola has been aware of the patents since the lawsuit was filed in October of 2011. (D.I. 473 at 153:8-11, 161:1-3; 299:14-300:4)

#### **A. Infringement of the ‘450 Patent**

IV argues that its expert, Dr. Jing Hu, showed that all limitations of the asserted claims were met and practiced by Motorola directly and indirectly. (D.I. 475 at 548:15-572:3 (claim 1), 572:4-573:11 (claim 5), 573:12-575:2 (claim 8), 575:3-576:18 (claim 9);

PTX-39, PTX-696, PTX-706, PTX-709, PTX-713, PTX-735, PTX-737, PTX-738, PTX-755) More specifically, IV argues that the accused Motorola Admiral smartphone (“Admiral”) performs the method of claim 1 by coupling to a base station over a shared wireless bandwidth using a packet centric protocol and allocating wireless bandwidth based on contents of packets, including information responsive to a field in the packet headers. Motorola’s expert, Mr. Seely, agreed that the Admiral performed all but one limitation of the asserted claims when the push-to-talk feature (i.e., Qchat) was activated. In particular, both experts agreed that the Admiral implements 3GPP2 referred to as EV-DO, Rev. A.<sup>19</sup> (D.I. 475 at 546:8-547:11; D.I. 477 at 1083:14-22) Furthermore, the experts agreed that by implementing EV-DO, Rev. A, the Admiral communicates data in packets to base stations over a shared wireless bandwidth. The experts further agreed that, when running the Qchat application, the Admiral communicates packets to a base station in multiple data flows called “RLP flows.” (D.I. 475 at 567:11-571:23; D.I. 477 at 1094:16-1096:4) The multiple flows include a voice flow, two signaling flows, and a best efforts flow. Transmitted packets are associated with RLP flow using a field in the packet header called the “RLPID,” which identifies the RLP flow the packet belongs to. (D.I. 475 at 553:1-554:8, 569:9-571:23; D.I. 477 at 1095:19-1098:18) The RLP packet header and RLPID field are present in every packet as required by the 3GPP2 standard. (D.I. 475 at 553:1-556:21; D.I. 477 at 1075:10-19)

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<sup>19</sup> EV-DO provides standardized ways for cellular devices to transmit data, and Qualcomm provides software to Motorola and other cellular companies that make use of various aspects of the EV-DO standard to allow cellular devices to transmit data. (D.I. 453 at 4)

Packets in these flows are prioritized, and bandwidth and resources are allocated for transmission to provide different Quality of Service (QoS) for each flow. (D.I. 475 at 561:8-20) These allocations occur at the MAC<sup>20</sup> layer in the software running on the phones, tagged with different RLPIDs. (D.I. 475 at 571:7-23)

The issue at trial regarded whether the bandwidth and resource allocations at the MAC layer are responsive to these RLPID values. IV asserts that the claim limitation “allocating said wireless bandwidth responsive to at least one field in the packet header” simply requires the presence of a value in the packet header that identifies the data flow. Motorola argues that the claims require that the “allocation” be “responsive to” a packet header field. The court construed “allocating is responsive to at least one field in the packet header” as “assigning a portion of the shared wireless bandwidth and a portion of the communications network resources for a particular transmission on the basis of information responsive to at least one field in the packet header.” (D.I. 284 at 57)<sup>21</sup>

IV asserts that Motorola’s expert, Mr. Seely, did not dispute that the accused Admiral phone infringes because the MAC layer allocates bandwidth based on the RLPID value. Specifically, Mr. Seely testified that the allocation at the base station occurs before the infringing allocation was performed, stating “[t]he way the Admiral works is it actually has to make an allocation decision before it can build a packet.” (D.I.

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<sup>20</sup> MAC stands for “media absent control” and is the “layer that makes all the decisions about how to allocate bandwidth and system when they get a data packet from the application layer.” (D.I. 475 at 538:2-5)

<sup>21</sup> The court determined that the scope of the claim, i.e., whether the packet header information is read indirectly from packet headers, is a matter to be resolved by the experts. (D.I. 366 at 3-4)

478 at 1309:12-17) This testimony supports Motorola's assertion that the Admiral does not infringe the asserted claims of the '450 patent because no packet header exists when it is time to allocate wireless bandwidth and system resources for a particular transmission and, thus, that allocation is not responsive to any field in a packet header.

The Admiral allocates bandwidth by checking radio conditions to determine how much data it can transmit, and then determining the applications from which it must get data for transmission. (D.I. 477 at 1048:17-1049:15) Only after it has performed the step of allocating bandwidth does it take the data from the applications and build a packet using that data. (D.I. 477 at 1048:17-1055:15) It is only in this last step of building a packet, after the allocation has occurred, that an RLP ID field is first created in the packet's header and an RLP ID value is inserted into that field. Motorola argues that, because the allocation of the wireless bandwidth and system resources happens before the packet is created and before any packet header containing an RLP ID value in a field exists, the allocation of bandwidth "for a particular transmission" is not "responsive to at least one field in the packet header" as required by the '450 patent. (D.I. 477 at 1051:1-5)

Insofar as the parties dispute whether the bandwidth and resource allocations at the MAC layer are "responsive" to the RLPID values, the court is charged with determining whether there is evidence upon which the jury could properly find for the non-moving party. Viewing the record in the light most favorable to Motorola, the court concludes that a jury could properly credit the testimony of Motorola's experts above that of IV's experts. Motorola presented sufficient evidence that a reasonable jury could conclude that, because the allocation of the wireless bandwidth and system resources

happens before the packet is created and before any packet header containing an RLP ID value in a field exists, the allocation of bandwidth “for a particular transmission” is not “responsive to at least one field in the packet header” as required by the ‘450 patent. *SIBIA*, 225 F.3d 1349 at 1355. IV’s motion for JMOL on infringement of the ‘450 patent is denied.<sup>22</sup>

## **B. Invalidity of the ‘450 Patent**

Motorola asserts that it presented three obviousness combinations through its invalidity expert, Dr. Katz: (1) U.S. Patent No. 6,463,096 (“Raleigh”) (DTX-465) in view of what a person of skill would have known; (2) Raleigh in combination with Packet Shaper;<sup>23</sup> and (3) Swan<sup>24</sup> in combination with Vetter.<sup>25</sup> Each combination will be addressed in turn.

### **1. Raleigh<sup>26</sup> in combination with Packet Shaper**

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<sup>22</sup> IV’s arguments regarding indirect infringement are unavailing because, without direct infringement, there can be no indirect infringement.

<sup>23</sup> A wired Ethernet box described in a data sheet dated July 16, 1997 and U.S. Provisional Patent Application No. 60/066,864. (D.I. 476 at 878:5-21, 911:4-20; DTX-490, DTX-126)

<sup>24</sup> A technical publication titled “A Mobile Multimedia Wireless Network.” (D.I. 476 at 879:6-880:5; DTX-462)

<sup>25</sup> A technical publication titled “ATM Concepts, Architectures, and Protocols” dated February 1995. (D.I. 476 at 933:16-934:15; DTX-480)

<sup>26</sup> The court notes that Motorola’s arguments regarding Raleigh alone were not properly raised at trial or through its expert, and will not be considered. As IV asserts, Raleigh, as a single reference, was not vetted during discovery, not thoroughly discussed by Motorola’s expert at trial or in his reports, and not properly included in the jury instructions. The final jury instructions on obviousness list the following references for consideration with respect to the ‘450 patent:

a. U.S. Patent No. 6,463,096 to Raleigh et al. (“Raleigh”) (DTX 465) and Packet Shaper, where Packet Shaper is represented by the following patents or printed publications:

Dr. Katz established that Raleigh discloses allocating wireless bandwidth “based on contents of packets to be communicated.” (D.I. 476 at 910:7-911:20, 918:1-919:1) Both parties agree that the contents of packets include two things: (1) a header; and (2) a payload. (D.I. 476 at 919:25-920:6, D.I. 477 at 1250:22-1251:2) Dr. Katz concluded, if one is allocating “based on contents of packets to be communicated,” one must be basing the allocation on the header, the payload, or both. (D.I. 476 at 919:25-920:6) This alone, he testified, is enough to suggest to one of skill in the art to allocate based on fields in the packet header and that, of the available options, one of skill in the art would know that the header is the best place to look. (D.I. 476 at 920:7-921:7) Motorola asserts that with such limited options available, it is obvious to try the different alternatives, thus providing sufficient evidentiary and legal bases for the jury’s finding of invalidity.

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(1) “Packet Shaper Data Sheet,” July 16, 1997 (“Packet Shaper Data Sheet”) (DTX 490)

(2) U.S. Provisional Patent Application No. 60/066,864 to Riddle et al. (DTX 126).

b. The article “SWAN: A Mobile Multimedia Wireless Network” by Prathima Agrawal et al (“SWAN”) (DTX 462) and the article “ATM Concepts, Architectures, and Protocols” by Vetter (DTX 480)

c. For claim 5, Raleigh plus U.S. Patent No. 6,125,397 to Yoshimura et al. (DTX 129)

(D.I. 407 at 37-38) (emphasis added) Furthermore, Raleigh, as a single reference, would fall under an anticipation argument, rather than obviousness. Anticipation was not included in any testimony or in the jury instructions. The court additionally notes IV’s objection regarding Dr. Katz’s combination of Raleigh with knowledge of one of skill in the art as being beyond the scope of his report. (D.I. 476 at 927:9-14)



As to the Packet Shaper reference, Dr. Katz introduced evidence that Packet Shaper teaches allocating bandwidth based on packet header fields with a wired apparatus. (D.I. 476 at 921:15-923:18) Dr. Katz further testified that Packet Shaper uses IP addresses in packet headers to allocate bandwidth, supported by the Packet Shaper Data Sheet dated July 16, 1997. (DTX-490) On cross-examination, named '450 patent inventor Dr. Jorgensen acknowledged that IP addresses are carried in packet headers, confirmed by figure 7 of the '450 patent. (D.I. 474 at 449:24-450:25; '450 patent at Fig. 7) IV's expert did not dispute this and, in fact, IV's infringement argument relies on the RLP ID being a field in a packet header, similar to the theory that IP addresses are fields in a packet header.

Dr. Katz presented evidence that one of skill in the art would seek to combine Raleigh, which was wireless, and Packet Shaper, which was wired. (D.I. 476 at 912:14-16, 923:22-924:9) Specifically, Dr. Katz testified that one of skill in the art would have been motivated to use the concepts from Packet Shaper regarding analyzing packet header fields to allocate bandwidth with Raleigh. (D.I. 476 at 924:10-20) Moreover, Dr. Katz testified that Raleigh explicitly states that it is "applicable to both wired and wireless networks." (D.I. 476 at 925:1-12; Raleigh at 4:39-40) Thus, Motorola asserts that the combination of Raleigh with Packet Shaper is entirely supported by the evidence, and was within the jury's discretion to credit Dr. Katz's testimony over Dr. Hu's on this point.

In rebuttal, IV played deposition testimony by Brett Galloway, a developer associated with Packet Shaper, in an attempt to disprove Dr. Katz's testimony. (D.I. 477 at 1185:18-1195:6) While Mr. Galloway testified that he is not aware of any

customer or testing which deployed Packet Shaper in conjunction with a wireless network, he did admit he “would actually be surprised that we didn’t” and he did not “remember all the testing” that was done. (D.I. 477 at 1186:23-25) IV’s expert, Dr. Hu, raised the teachings of a separate packet shaper related patent<sup>27</sup> that was considered by the Patent Office in the issuance of the ‘450 patent. (D.I. 477 at 1216:10-1217:17; PTX-716) When comparing this patent to the teachings relied upon by Dr. Katz,<sup>28</sup> Dr. Hu admitted that information disclosed “from these two references, are essentially the same.” (D.I. 477 at 216:23-1217:13 (referencing PTX-716)) Based on this testimony, Motorola asserts that IV acknowledges that Packet Shaper shows the use of packet header field information to allocate bandwidth.

Rather than directly dispute these combinations, IV asserts that Motorola failed to sufficiently corroborate its evidence. Specifically, IV asserts that Dr. Katz merely provided a data sheet he admitted was an advertisement that “would be distributed to potential customers at a trade show or something like that” and discusses “a little bit about, at a high level,” the system it purports to describe. (D.I. 476 at 878:12-16) Other than showing a picture of Packet Shaper, IV asserts that the remainder of Dr. Katz’s testimony was uncorroborated. For instance, the data sheet does not discuss how Packet Shaper uses IP addresses and does not mention allocating wireless bandwidth based on “packet headers.” (DTX-490) Motorola argues this is a collateral attack insufficient to warrant JMOL. Regardless, Motorola asserts that the same testimony by

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<sup>27</sup> U.S. Patent No. 6,046,980, titled “System for managing flow bandwidth utilization at network, transport and application layers in store and forward network” filed on November 24, 1997 and granted on April 4, 2000. (PTX-716)

<sup>28</sup> Dr. Hu characterized this as “a table from the PacketShaper reference that showed ... that those fields are in the packet header to be looked at.”

Packet Shaper executive Brett Galloway authenticated both of the Packet Shaper documents (D.I. 477 at 1191:12-1193:19; 1193:20-1195:6); thus, both the Data Sheet (DTX 490) and the Patent Application (DTX 126) were qualified as independent pieces of prior art to the '450 patent.

## **2. SWAN in combination with Vetter**

Dr. Katz described SWAN as an article in a highly regarded trade magazine “dealing with [the] concept of quality of service and how to provide it in a networked environment that involves a wireless hop to multimedia terminals.” (D.I. 476 at 880:3-5) Specifically, Dr. Katz testified that “what motivates the entire system of SWAN...the goal is to implement Internet protocol, IP over wireless ATM.”<sup>29</sup> (D.I. 476 at 929:15-18) He then describes ATM as packet centric protocol, “[i]t has the headers and payloads,” and further agreed that SWAN uses a packet centric protocol for the wireless hop. (D.I. 476 at 929:24-25, 930:17-19; '450 patent at 36:57-65) Dr. Katz then walked through the limitations of claim 1 in conjunction with the teachings of SWAN, describing the Swan wireless ATM system, how it works, and provided experimental results based on its use. (D.I. 476 at 929:1-965:3) Dr. Katz ultimately concluded that “the SWAN reference describes each one of the four limitations of the claim, the coupling, one or more subscriber premise equipment stations with a base station over shared wireless bandwidth using a packet centric protocol, the IP protocol over wireless ATM. It describes allocating said wireless bandwidth and system resource based on the contents of the packets where the contents of each packet includes a packet header.” (D.I. 476 at 18-25)

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<sup>29</sup> Asynchronous transfer mode

Dr. Katz referred to Vetter as a technical publication that describes what the ATM networking standard is in a tutorial form, specifically identifying a figure that shows the format of an ATM cell, an ATM packet, the payload and header fields, one of the header fields as a virtual circuit, and virtual path identification information. (D.I. 476 at 934:20-935:2) In conjunction with SWAN, Dr. Katz used Vetter “to show you that that the header information is the VCI, VPI field in the cell, and that is exactly what SWAN teaches me to put as the header of the larger packet at the MAC layer.” (D.I. 476 at 937:6-11) This would render claim 1 of the ‘450 patent obvious. (D.I. 476 at 937:14-15)

IV asserts that neither SWAN nor Vetter discloses the use of a packet-centric protocol because both references use the ATM architecture, rather than the packet centric architecture. Additionally, IV argues that the references teach away from the claimed invention because the ‘450 patent disclaims the ATM architecture taught by SWAN and Vetter. Motorola asserts that SWAN paper merely stated that using ATM in the mobile and wireless setting relate to the “challenges” of using ATM in a wireless context in the background section, and that the entire purpose of SWAN was to describe the wireless ATM system that the authors had developed. (D.I. 476 at 1003:2-1004:13) Since both references relate to the same protocol and, in fact, one explains how the protocol works and the other makes use of it, Dr. Katz’s combination of the two references was proper, and the jury was free to find that they could be combined.

### **3. Conclusion**

Having reviewed the record, the court finds Motorola presented sufficient evidence to support the jury’s verdict of obviousness. A reasonable jury was free to credit Dr. Katz’s testimony over Dr. Hu’s, and it is not the court’s role to second guess

the credibility determinations of the jury. *SIBIA Neurosciences*, 225 F.3d 1349 at 1355.

IV's motion for JMOL as to obviousness of the '450 patent is denied.

## **VII. MOTOROLA'S RENEWED JMOL MOTION ON THE '462 PATENT (TRIAL 2)**

The '462 patent claims a system that involves: (i) a portable device referred to in the claims as a "detachable handset" that has a central processor; and (ii) a "docking display unit" that lacks a central processor. ('462 patent at 1:19-30, 6:2-20) The detachable handset can be docked with the docking display unit and when docked, the central processor in the detachable handset controls the entire system. (*Id.*)

Independent claim 1 is reproduced below.

1. A portable processing device comprising:

a detachable handset unit sized for handheld grasping and including a central processor and a plurality of first circuits, said processor controlling the operation of said first circuits, and said first circuits including at least a video interface, a communication interface and a data input interface;

a portable docking display unit dimensioned substantially larger than said detachable handset unit, said portable docking display unit including a first display and a plurality of second circuits, said plurality of second circuits not including a central processor and including a video interface, and a data input interface, and wherein said central processor controls the operation of at least one of said second circuits and said first display when said detachable handset unit is docked with said docking display unit; and the docking display unit is fully operable only when the detachable handset is docked thereto.

('462 patent at 6:2-20) IV asserts infringement of claims 1, 10, 11, and 13. (D.I. 424)

### **A. Infringement of the '462 Patent**

#### **1. Direct infringement**

Claim 1b of the '462 patent requires "a portable docking display unit including a first display and plurality of second circuits, said plurality of second circuits not including a central processor and including a video interface." The only issue at trial was whether the Lapdock has a central processor. (D.I. 481 at 469:6-9)

The court construed "central processor" to mean "the part of a computer system that performs the primary computational functions, e.g., to control the operation of various circuits." (D.I. 284 at 65) The court further stated that "[t]he patent prosecution history makes clear that the docking display unit does not have a processor of its own." (*Id.* at 66) Motorola argues that this construction is satisfied if a component in a computer system controls the operation of various circuits and that IV cannot show infringement because Lapdocks have a scaler and an MSP430 microprocessor that are processors that control the operation of various circuits in the computer system.

IV asserts that the Lapdocks do not contain a central processor, that the MPS430 is not a central processor, and that it is the handset's central processor that controls the display as it runs the operating system and applications such as messaging, games, email, or enterprise applications. In support, IV proffers that Motorola's fact witness and expert admitted that the Motorola smart phones have a central processor and that the Lapdock is merely a peripheral device. (D.I. 480 at 217:16-219:23; 221:13-20; D.I. 481 at 470:21-471:5) The scaler chip in the Lapdock cannot run an operating system, it cannot run applications, and it cannot display anything, other than potentially a battery-charging icon. (D.I. 480 at 217:16-219:23; 232:6-234:1; D.I. 481 at 473:1-14 ("I would not expect the scaler chip to run an operating system real-time, no, in any application of

a scaler chip ...[Running applications on a scaler chip] wouldn't be appropriate ... I have never called it a standalone computer.”))

Regarding the MPS430 chip, IV argues that no evidence was presented to the jury as Motorola's expert stated that the only chip he identified in the Lapdock was the scaler chip. (D.I. 481 at 471:13-17) Rather, the only expert testimony provided was Dr. Alpert's testimony that “[w]ell, as I've seen it used in the Lapdock, it would not be a central processing unit. That's the only thing I've considered.” (D.I. 481 at 390:15-4)

Finally, IV asserts that it provided sufficient evidence that the handset's central processor controls the operation of the display. (D.I. 480 at 223:1-224:13; D.I. 481 at 335:12-338:11; 342:1-348:7; PTX-217) Furthermore, Motorola's expert, Dr. Drabik, failed to offer any evidence that the central processor in the Motorola handsets do not control the display. Tellingly, he testified at trial that the central processor is ultimately in charge of the display, that the scaler and the circuits in the Lapdock operate according to the “directives” of the central processor, and that these directives had “the same effect” as controlling the display. (D.I. 481 at 480:3-24)

Having reviewed the record, the court finds Motorola's arguments for JMOL conclusory and devoid of the record evidence required to disturb the jury's infringement verdict. IV's testimony furnishes sufficient evidence to determine that the Lapdocks do not contain a central processor, that the MPS430 is not a central processor, and that it is the handset's central processor that controls the display. *SIBIA*, 225 F.3d 1349 at 1355 (“[The court] must draw all reasonable inferences in favor of the prevailing party, and not make credibility determinations or substitute [its] view of the conflicting evidence for that of the jury.”) A reasonable jury could have made these determinations and,

therefore, the accused products infringe the asserted claims of the '462 patent.

Motorola's motion for JMOL on infringement of the '462 patent is denied.<sup>30</sup>

## **2. Contributory and induced infringement**

IV alleges that Motorola phones contribute to the infringement of claim 1 and that these phones are not suitable for substantial noninfringing uses. Motorola briefly addresses this issue, contending that to infringe claim 1, both a phone and a Lapdock are required. (D.I. 481 at 372:5-8; 372:13-16) Although Motorola phones alone are capable of use as phones without a Lapdock, the Lapdocks were not the accused products. Rather, the Lapdock products were a material component of the accused Lapdock/handset combination and the court properly framed the issue by instructing the jury as follows: "[T]he Lapdock products are not a staple or commodity article, in other words, the Lapdock products do not have a substantial noninfringing use or, [] alternatively, a number of noninfringing uses." (D.I. 482 at 639:15-18) Additionally, Dr. Alpert's testimony was consistent with this instruction when he explained that the Lapdock "really has no use" unless combined with a phone, and that it is essentially a "paperweight." (D.I. 481 at 357:18-358:13) Therefore, the court finds IV met its burden to prove contributory infringement by a preponderance of the evidence.

As to inducement, Motorola argues that there was insufficient evidence to show that Motorola intended or encouraged its users to infringe the '462 patent. IV offered record evidence of Dr. Alpert's discussing Motorola's statements that instructed and encouraged its users to use their phones with the Lapdock products as follows: "So this

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<sup>30</sup> The court additionally denies Motorola's request for a new trial based on the same evidence. *Levy*, 573 F. App'x at 105.



is encouraging, instructing users to attach the phone, in this case, Electrify, to one of the Lapdock products,” (D.I. 481 at 361:6-20; 362:1-364:17) to which Motorola offered no evidence in rebuttal. (D.I. 481 at 481:7-16)

The court finds IV presented sufficient evidence of inducement, as a reasonable jury could credit Dr. Alpert's testimony that Motorola induced infringement. Motorola has no basis to overturn the jury's verdict and its motion for JMOL on induced infringement of the '462 patent is denied.

## **B. Invalidity of the '462 Patent**

### **1. Nelson and Smith as to claim 1**

Motorola contends that claim 1 of the '462 patent is invalid under 35 U.S.C. § 103 in view of U.S. Patent No. 5,436,857 to Nelson (“Nelson”) and U.S. Patent No. 7,549,007 (“Smith”). Specifically, the aforementioned references meet the following three limitations of claim 1: the “detachable handset” (“limitation 1a”); the “docking display unit” (“limitation 1b”); and the “wherein”<sup>31</sup> clause (“limitation 1c”). Under the court's construction, the detachable handset is “a device that can be attached to and detached from the portable docking display unit and is small enough to be held in one hand.” (D.I. 284 at 67) Limitation 1a additionally requires that the detachable handset include a central processor, which was construed by the court as “the part of a computer system that performs the primary computational functions, e.g., to control the operation of various circuits.” (*Id.* at 65)

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<sup>31</sup> “[W]herein said central processor [in the detachable handset] controls the operation of at least one of said second circuits and said first display [in the docking display unit] when said detachable handset unit is docked with said docking display unit,” as recited in claim 1 of the '462 patent.

Nelson describes a computer system that comprises a module (10) and a base unit (12). (Nelson; D.I. 482 at 516:7-517:20) Different aspects of a complete computer system are taught to be in either the module or the base unit. IV's expert, Dr. Alpert, specified that:

[W]hat Nelson is teaching is a way [of] partitioning the components of a computer system. Some of them go in what's identified as a module that's highlighted, and the other components go in the - a base station. When the module attaches to the base station, then you get a complete computer system. And Nelson is teaching that the module should contain the portions that are common to all the computer systems to which it might be attached, and that would be the - a processor, memory, and a disk drive.

(D.I. 482 at 516:9-19) The module can be plugged into a base unit, and then removed to relocate, store securely, or plug into a different base unit. But the module is not functional as a standalone unit, "[i]t's something that can be held in your hand and moved about, but it's not operable on its own. A user can't do anything with the - that module alone." (D.I. 482 at 516:20-24) The module includes a processor, memory, and hard drive; the base unit includes the additional components such as the communications interfaces. (D.I. 482 at 516:20-519:4; Nelson)

Smith describes the interface between a portable telephone and a portable computer that allows the computer to use the telephone as a modem. Dr. Alpert testified that Smith "involves a laptop, which is a functional computer on its own, and a cellphone, which is a functional device to make phone calls on its own. And Smith shows how you can attach the cellphone to the laptop such that the laptop controls the cellphone and uses it as a peripheral device for wireless communication." (D.I. 482 at 512:16-513:7) The telephone in Smith has no control over the portable computer and

no way to present anything on the display of the portable computer. (D.I. 482 at 513:16-514:12)

Motorola presented testimony by its expert, Dr. Drabik, that a person of ordinary skill in the art at the time of the '462 patent would have been motivated to use Smith's detachable handset with Nelson's docking display unit, and that this specific combination renders obvious claim 1 of the '462 patent. (D.I. 481 at 431:2-15) Motorola contends that IV performed no analysis and presented no evidence to the jury to dispute this specific combination, nor presented evidence of secondary considerations.<sup>32</sup> (D.I. 482 at 493:23-494:22; 551:10-19) Rather, IV's expert "considered whether **any** cellphone might be combined with Nelson" (D.I. 482 at 551:10-14) (emphasis added) and attacked the Nelson and Smith references individually without considering their combination.

As to the "detachable handset" requirement of claim 1, Motorola asserts that Dr. Drabik walked through figures from Smith and Nelson that, when combined, establish a device that is independently operable, small enough to be held in one hand, and "sized for handheld grasping and including a central processor and a plurality of first circuits, said processor controlling the operation of said first circuits, and said first circuits including at least a video interface, a communication interface and a data input interface." (D.I. 481 at 433:13-18; 434:9-17; 435:6-14; 436:15-437:3; 437:21-442:3; 487:4-19; 488:3-9) Additionally, IV's expert, Dr. Alpert, admitted that Smith's detachable handset satisfied limitation 1a and provided no rebuttal testimony to that of

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<sup>32</sup> The court sustained an objection regarding introduction of licenses. (D.I. 482 at 493:23-494:24)

Motorola's expert. (D.I. 482 at 530:15-531:2; 531:20-23) As to the video interface requirement, the named inventor, Mr. Kumar, disclosed that LCD displays existed at the time of the invention. (D.I. 480 at 208:15-17) Dr. Drabik additionally testified that figure 12 of Smith includes a display. (D.I. 277 at 439:12-440:9) Finally, IV's expert testimony about computer systems likewise confirms the obviousness of Smith's detachable handset having a video interface. Smith's detachable handset, by itself, is a computer system with a central processor and a display that can be used on its own. (D.I. 481 at 435:6-14; 439:1-6; 439:14-440:16; 511:12-13 (a "handset on its own is a computer system") Dr. Alpert testified that "what's commonly done" in a computer system "is that there would be a device called an interface circuit that would be located between the central processor and the peripheral device." (D.I. 481 at 308:19-22) If the peripheral device is a display, then the interface is a video interface. (D.I. 481 at 309:14-22) The video interface "enables the processor to communicate information with the [display] and then in turn with the external environment" such as by displaying the information on the display. (D.I. 481 at 308:24-309:8; 309:16-310:7)

Further, the sole reason IV's expert provided for Nelson alone not disclosing limitation 1A was that the portable module is not operable on its own. (D.I. 482 at 521:10-14) Dr. Alpert did not rebut Motorola's evidence that there are video interfaces in the portable module and the docking display unit of Nelson to send information from the central processor in the portable module to the display in the docking display unit because the docking display unit does not have any processor. (D.I. 481 at 445:7-446:3; 447:17-448:1; 448:4-8; D.I. 482 at 516:21-22; 542:10-17)

IV avers that the court has already ruled on this issue in summary judgment and another 50(b) motion.<sup>33</sup> IV additionally argues that it offered specific testimony based on the teachings of Nelson and Smith that each reference separately failed to disclose the limitations of claim 1 of the '462 patent; that the processor in the Smith handset was incapable of operating a full blown computer at the time of the invention; and that one of skill in the art would not have replaced the module of Smith with any handset.

According to IV, neither reference discloses a handset including a central processor that controls at least one of the interfaces in the base unit and the display. The handset in Smith is incapable of controlling anything in the laptop, and cannot display video using the laptop. (D.I. 482 at 513:16-22) Dr. Drabik was impeached in this regard and admitted that his prior testimony was that the handset of Smith lacked this capability. (D.I. 482 at 498:17-499:10) The '462 patent requires the handset to include a central processor that "controls the operation of at least one of said second circuits and said first display." ('462 patent at claim 1b) However, the evidence showed that Smith is designed to work in the opposite manner, i.e., the laptop of Smith controls the handset. In direct contrast to Mr. Kumar's invention, the phone does not and cannot control anything in the laptop of Smith. (D.I. 482 at 512:23-513:22) Therefore, the processor in Smith's phone was never intended to work in the way that Motorola argues. Dr. Drabik admitted that the Smith processor does not control the laptop. (D.I. 482 at 485:17-24; 496:24-500:3 ("Now, the first question I have for you is, as you previously testified under oath, you did not present any evidence in this case that the

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<sup>33</sup> In both instances, the court merely held that there existed a genuine issue of material fact allowing the claim to go forward for a jury to decide. (D.I. 284 at 70, D.I. 349 at 25)

cellphone in Smith controls anything in the laptop; is that true? A. I don't recall presenting any specific evidence to that effect, that's true.") Unquestionably, because the handset of Smith does not control and cannot control the laptop, its circuits or its display, Smith does not disclose a handset that includes a central processor that "controls the operation of at least one of said second circuits and said first display when said detachable handset unit is docked with said docking display unit" in accordance with claim 1.

## **2. Nelson and Smith as to claims 11 and 13**

Motorola briefly argues that it presented sufficient evidence that Nelson and Smith render claims 11<sup>34</sup> and 13<sup>35</sup> obvious. Motorola additionally asserts that IV did not rebut this and admitted that devices configured as clamshells with recesses on the back for connection were well-known prior to the '462 patent. (D.I. 480 at 206:23-207:7; D.I. 482 at 549:19-550:3)

## **3. Nelson, Smith, and Ethridge as to claim 10**

Motorola asserts that the combination of Nelson, Smith and U.S. Patent No. 5,798,733 ("Ethridge") (DTX-122)<sup>36</sup> renders the detachable handset unit "includ[ing] a Global Positioning System receiver" as recited in claim 10 obvious, proffering that IV

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<sup>34</sup> "[D]ocking display [] configured as a clamshell unit with first and second portions, having the said auxiliary display in the first portion and an auxiliary keyboard in the second portion" (D.I. 481 at 458:1-459:23)

<sup>35</sup> "[D]ocking display [that] includes a recessed portion in which the handset is docked, wherein the handset when docked, is positioned on the back of one of the portions of the clam shell unit" (D.I. 481 at 458:1-459:23)

<sup>36</sup> Filed January 21, 1997 and issued August 25, 1998 titled "Interactive position guidance apparatus and method for guiding a user to reach a predetermined target position."

admitted that portable devices with GPS receivers were well-known, including the portable GPS receiver of Ethridge. (D.I. 480 at 206:18-22; D.I. 482 at 548:18-20, 549:16-18) Additionally, Motorola asserts that IV did not rebut Motorola's evidence that it would have been obvious and common sensical to have a GPS receiver in Smith's detachable handset so that a user could know where he or she is currently located and know how to reach a desired destination. (D.I. 481 at 348:20-349:3; 455:13-17; 455:22-23; 457:13-14; 459:14-25)

IV asserts that dependent claim 10 is not obvious for the same reasons that claim 1 is not obvious. The addition of Ethridge's GPS teaching fails to cure the missing limitation and cannot render obvious claim 10 or any claim depending from claim 1 (i.e., claims 11 and 13). Moreover, just as Motorola failed to establish that one of skill in the art would combine Nelson and Smith, it cannot show that one would go the extra step of adding yet another reference, particularly where, as IV's expert pointed out, there was no reason to consider using Ethridge in a system as claimed and taught by the '462 patent. (D.I. 482 at 521:22-522:24)

#### **4. Conclusion**

The court finds IV presented sufficient evidence to support the jury's verdict of nonobviousness. A reasonable jury was free to credit Dr. Alpert's testimony over Dr. Drabik's, especially where Dr. Drabik admitted he spent little time preparing his report, was not familiar with the accused products, and gave arguably conflicting and unclear testimony. (D.I. 481 at 466:10-467:8, 467:19-468:8, 471:22-472:14, 482:3-485:7; D.I. 482 at 498:6-499:100, 499:24-500:3, 500:6-502:10) It is not the court's role to second

guess the credibility determinations of the jury. *SIBA*, 225 F.3d 1349 at 1355.

Motorola's motion for JMOL as to obviousness of the '462 patent is denied.<sup>37</sup>

## **VIII. MOTOROLA'S MOTION FOR A NEW TRIAL ON THE '462 PATENT (TRIAL 2)**

### **A. Expert Reports**

Motorola raises two arguments regarding testimony of experts outside the scope of their respective expert reports. First, Motorola asserts that Dr. Alpert testified outside the scope of his reports that it would not have been obvious to replace Nelson's module with a cellular telephone, rather than a docking display unit. Motorola argues that Dr. Alpert's expert reports fail to address the sole obviousness combination Motorola presented at trial, specifically, using Smith's detachable handset with Nelson's docking display unit. (D.I. 482 at 551:10-19) Rather than addressing that combination and over Motorola's repeated objections (D.I. 480 at 102:23-104:8; 104:23-106:5; D.I. 481 at 280:4-284:7; D.I. 482 at 519:20), Dr. Alpert testified at trial that a person of skill in the art would not have been motivated to replace Nelson's portable module with any cellular telephone. (D.I. 482 at 519:13-520:5) This opinion is outside the scope of Dr. Alpert's expert reports as those expert reports with respect to replacing Nelson's portable module are limited to asserting that "Nelson does not disclose a handset" and that "[t]he Drabik Report provides no reason that a person having ordinary skill in the art would replace the processor, hard drive, and memory module with a telephone handset." (D.I. 443, ex. A at § 8.18.3) Accordingly, Motorola argues, a new trial is warranted.

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<sup>37</sup> The court additionally denies Motorola's request for a new trial based on the same evidence. *Levy*, 573 F. App'x at 105.



IV responds that Dr. Alpert's report is clear that one skilled in the art would not replace the Nelson module with a telephone handset, as Nelson teaches away from including handset function interfaces in the portable module. (D.I. 459, ex. A at 8.18.3 and 8.18.6) Motorola's argument, therefore, is irrelevant.

Motorola then argues a new trial is warranted because Dr. Alpert testified outside the scope of his reports when he testified that the central processor in the accused phones control the operation of the Lapdock's display. In support, Motorola argues that Dr. Alpert's expert reports were limited to asserting that the central processor in the accused phones controlled the operation of the data input interface (Lapdock keyboard controller) and the video interface (Lapdock scaler) in the Lapdock. (D.I. 443, ex. B at §§ 9.7.22-23, 9.8.31-32, 9.9.12-13) However, at trial he testified that "I find that the central processor does control the Lapdock display," outside the scope of his expert reports. (D.I. 481 at 318:14-15) Likewise, Dr. Alpert's testimony at trial that the central processor "controls what information is presented on there" and the central processor "controls [the] screen saver" is also outside the scope of his expert reports. (D.I. 481 at 318:15-16; 344:20-346:10; 398:9-399:4; 417:12-15; 479:17-20; 479:25-480:2)

IV responds that Dr. Alpert gave the same testimony at trial as he did in his expert report. Additionally, Motorola failed to object to Dr. Alpert's testimony regarding the central processor in the phones controlling the display of the Lapdock and, therefore, has waived any such argument that a new trial is warranted. As to his reports, IV asserts that Dr. Alpert's opinion has always been that the central processor in the phone controls the scaler and all video content that appears on the display of the Lapdock, which would include showing the screen of the phone on the Lapdock, the

browser, the screen saver or anything else. (D.I. 462 ex. B at 8.6, 8.7, 8.8.1-2, 8.15.1, 9.7.11, 9.7.21-25) During trial, Dr. Alpert reviewed PTX-217, a block diagram of the system, and showed how the central processor in the phone is in control and sending the content that should be displayed on the screen regardless of what that content is. (D.I. 481 at 318:6-12, 335:12-338:11, 342:1-348:7, 396:17-399:4) Overall, Dr. Alpert confirmed through his analysis, with the support of Motorola's own witness, that the Lapdocks cannot control the display because they cannot operate on their own and their function is limited to charging the battery without the processor from the handset being attached.

The court finds that Dr. Alpert did not testify outside of his expert reports. First, his testimony goes to the heart of disputing Dr. Drabik's assertions that it would have been obvious to combine the functions from "base unit (12) to module (10) describe[d] by Nelson." (D.I. 459, ex. A at 8.18.4) In fact, his report clearly states that "it would be necessary to duplicate the functions required for desktop and portable PCs within the module or between the module and base unit; either of these approaches goes against the benefits taught by Nelson's disclosure by increasing system cost." (D.I. 459, ex. A at 8.18.6) As to his testimony regarding the central processor, the primary issue disputed by the parties regarding infringement was whether the Lapdocks contain a central processor and was discussed in sufficient detail in his report to permit his testimony.

## **B. Copying and Praise Evidence**

Motorola argues a new trial is warranted due to IV's introduction of facts not relevant to the jury's determination of infringement. For instance, IV's counsel stated

that in 2001, '462 patent inventor Mr. Kumar received the "Design and Engineer Showcase Award from [the] Consumer Electronics" show which is "one of the largest shows in the country" and is "a really big deal." (D.I. 480 at 129:12-17) She also stated that "Mr. Kumar receiving this award in 2001 for his invention shows praise by the industry for all of his hard work and innovation." (D.I. 480 at 129:18-20) With respect to copying, Mr. Kumar testified that "I was well aware that we were a small company, and if it was a good idea, it could get copied, and how could we stop others from copying and basically taking our creation" (D.I. 480 at 161:2-4), and that Motorola "couldn't have copied it better." (D.I. 480 at 184:12-13) IV responds that Mr. Kumar's testimony regarding copying was simply a statement of why the inventor sought patent protection. Motorola neither objected to nor moved to strike this testimony.

Additionally, IV argues, Motorola chose to affirmatively inject the issue into the case by questioning its own corporate engineer/representative, Mr. Barber, about copying, asking point-blank questions whether he copied and whether he saw "anything from [his] team where they copied anything from Mr. Kumar." (D.I. 481 at 290:25-291:10) Motorola also questioned IV's expert whether he had an opinion on copying even though IV's expert did not testify regarding copying during his direct examination. (D.I. 481 at 367:1-5) Finally, no statement regarding copying was made by IV during its closing argument. (D.I. 482 at 556:12-586:16) However, Motorola's counsel addressed the issue during his closing, discussing the issue of copying and how the record shows that Motorola did not copy. (D.I. 482 at 587:23-25) IV argues that it was Motorola who injected the issue of copying into the trial testimony and cannot raise the issue in seeking a new trial.

Regarding the award, the court finds that in light of the complex subject matter and resulting trial record, this alleged evidence was insufficient to tip the balance for the wrong reason. As stated by IV's counsel, "the patent is not obvious because of this award." (D.I. 482 at 617:2) Turning to copying, IV did not reiterate or assert any evidence on copying in its closing argument.<sup>38</sup> Nor was copying included in the jury instructions. Rather, it was Motorola's counsel who discussed copying during closing argument and now raises the issue on JMOL. The court concludes that a new trial is not warranted on the basis of these arguments.

### **C. Interpretation of the Court's Construction of "Central Processor"**

As noted above, the court construed "central processor" to mean "the part of a computer system that performs the primary computational functions, e.g., to control the operation of various circuits" supported by the claim language of claim 1. (D.I. 284 at 65-66) The language of claim 1 indicates that a detachable handset includes "a central processor and a plurality of first circuits, said processor controlling the operation of said first circuits." ('462 patent at 6:3-6) Claim 1 further reads a portable docking display unit including "a first display and a plurality of second circuits, said plurality of second circuits not including a central processor . . . and wherein said central processor controls the operation of at least one of said second circuits and said first display when said detachable handset unit is docked with said docking display unit." ('462 patent at 6:9-18) The court further specified that "[t]he patent prosecution history makes clear that the docking display unit does not have a processor of its own." (D.I. 284 at 66)

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<sup>38</sup> Contrary to Motorola's assertion, IV merely addressed the copying issue briefly in rebuttal, ultimately concluding that "we've met our burden to show that Motorola infringes." (D.I. 482 at 611:22-612:1)

Motorola argues that this construction explicitly provides that controlling the operation of various circuits is an example of performing the primary computational functions. Thus, if a component in a computer system controls the operation of various circuits, then that component satisfies the court's construction. Motorola further argues that plaintiff's interpretation confused the jury and added non-existent limitations.

During opening argument, IV's counsel explained operating systems and central processing units as follows:

Each of the phones up there that you see has an operating system. That's the software side. And for the Motorola and Samsung phones, the operating system is known as Android. The Apple phone, for the Apple phone you see in the middle, the operating system is iOS. And you also see on those smartphones little icons. Those are known as applications. Those are additional software programs that allow you to do such things as surf the Internet, send an e-mail, make a phone call. But what this case is really about is the hardware side of the smartphone, the hardware side of the computer. And what you see here are central processing units, or CPUs for short. This hardware in the smartphone is what really controls everything that goes on. The hardware is responsible for running the operating system, and for purposes of this case we'll be focused on Android, and the CPU is also responsible for running those software applications I showed you a moment ago.

(D.I. 480 at 123:2-21) During cross examination of Mr. Barber, IV's counsel confirmed that the Android operating system runs all applications, that the Lapdock does not have an operating system, and that the scaler chip does not run on Android. (D.I. 481 at 217:20-25, 219:6-7, 232:6-9) IV's expert, Dr. Alpert, additionally testified that each phone has a central processor that runs the Android operating system and the application software. (D.I. 481 at 317:8-14) He testified that he reviewed the code, referencing the WEBtop application, which revealed "how the open source Android system was customized for the Motorola phone. That application operating system, again, [is] executed on a central processor of the handset." (D.I. 481 at 321:17-23)

With respect to the accused Atrix 4G device, he referenced the WEBtop application and stated that “these would be primary computational functions that would be executed on the central processor of the handset of the phone.” (D.I. 481 at 327:9-14) Moreover, he testified that the scaler is not a central processor, stating: “It’s not a central processor because, as we’ve seen, it’s not ... computing applications or [an] operating system.” (D.I. 481 at 337:23-338:3) When asked about the court’s construction during cross examination, Dr. Alpert testified that his “interpretation of primary computational functions would be performing the functions for which the system is intended, for which the user has intended it and the functions the user is performing, which would involve running the application and operating system.” (D.I. 481 at 375:16-24) During closing argument, IV’s counsel stated: “Running an operating system and running applications are the primary computational functions that a central processor performs.” (D.I. 482 at 567:5-8)

Motorola asserts that it presented evidence that the scaler and the MSP430 microprocessor in the Lapdock are processors that run software to control the operation of various circuits, satisfying the court’s construction.<sup>39</sup> Nonetheless, Motorola asserts that a new trial is warranted because IV’s introduction of evidence that a central processor must run an operating system and user applications confused the jury as to the actual meaning of “central processor” and attempted to interpret the court’s construction to further limit the meaning of “central processor.”

IV responds that it properly applied the court’s construction to the facts and the jury properly found that the Lapdocks do not have a central processor. IV additionally

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<sup>39</sup> Motorola provides no citations for this assertion in its motion.

asserts that Motorola's argument for a new trial contradicts the court's construction with a new theory that any processor that controls the operation of circuits is the part of a computer system that performs the primary computational functions and is thus a "central processor." However, when read as a whole, the court's construction does not cover a "garden variety" processor that merely controls circuits. While claim 1 allows for a plurality of other processors, what sets apart a central processor is being "the part of the computer system that performs the primary computational functions" to control other circuits. (D.I. 284 at 65) IV asserts that Motorola's interpretation would read on all processors because all processors control circuits which reads out the word "central" from the claim.

IV additionally argues that Motorola did not object to IV's testimony or arguments regarding "central processor" or examples of primary computational functions at trial. Therefore, Motorola's argument in this regard is waived. Nonetheless, IV asserts that its expert merely applied the construction to the accused products to show that: (1) there is a processor in the accused phones that performs the primary computational functions of the system (i.e., the combination of the handset and the Lapdock); and (2) no such processor existed in the Lapdocks. (D.I. 481 at 322:17-21, 325:8-328:4, 334:11-338:21) In order to show that the processor in the accused phones performed the primary computational functions of the system, IV's expert gave examples of primary computational functions and showed how those were present in the Motorola phones but not in any processor in the Lapdock. (D.I. 482 at 326:2-327:14, 333:3-16, 335:12-336:21) Two of those examples include running an operating system and applications, the entire point of docking the phone in the display unit (i.e., the

combination of the phone and Lapdock that comprises “the system”). Again, the Lapdock is not a system by itself and cannot do anything without the handset. (D.I. 481 at 341:3-15) Rather than adding limitations to the court’s construction, IV’s expert was applying it to the accused products and never said that running an operating system or applications is required in order to meet the construction in every circumstance.

The court finds Motorola’s arguments conclusory and agrees with IV that when read as a whole, the court’s construction does not cover a processor that merely controls circuits. What sets apart a central processor is being “the part of the computer system that performs the primary computational functions” to control other circuits. (D.I. 284 at 65) Motorola’s interpretation would read on all processors because all processors control circuits, and would read out the word “central” from the claim. Motorola’s motion for new trial is denied.

## **IX. CONCLUSION**

For the foregoing reasons, the court denies the parties’ post-trial motions. (D.I. 433, 436, 438, 442, 444)<sup>40</sup> An appropriate order shall issue.

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<sup>40</sup> Additionally, IV’s motion to strike Motorola’s demonstrative exhibits (D.I. 449) is GRANTED. The exhibits are not in evidence and not considered.